December 7, 1992

Personal memo from JOSHUA LEDERBERG

To: Arthur Upton, NYU

It was upsetting to see the pot being stirred again by Alice Stewart's article in the New York Times (Dec. 8). But I wondered if all possible dose fractionation experiments had been done.

Off the wall - could there be systemic, even humoral influences -- does irradiating one part of the body DE-sensitize other organs or tissues? How many lesions per cell could there be at the low dose ranges? If less than 1, they could hardly interact with one another (adaptive responses, etc.) within a given cell.

And the possibility of diminished DNA repair capability as a function of age can hardly be discounted.

In the end, I am very skeptical about the epidemiological methodology as applied to any part of this story. If there is a finding that "radiation protects against cancer", that is automatically a fluke; but how is any other finding any different?

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